

In the Drawings:

The attached drawing sheet includes changes to Fig. 7. The Annotated sheet showing the changes is attached. The Replacement sheet is also attached and should replace the originally filed sheet.

REMARKS

As a preliminary matter, with regard to the objection to the Drawings, Applicants respectfully submit that Figure 7 is a prior art figure (*see* page 9, lines 1-12), while Figure 1 is an embodiment of the present invention (*see* page 8, lines 28-29). Since Figure 7 is already designated by the legend “Prior Art,” Applicants respectfully request withdrawal of this objection to the drawings.

As a further preliminary matter, also with regard to the drawings, submitted herewith is a marked-up version of Figure 7, which shows corrections in red. This figure is being corrected to more accurately match the prior art device described on page 2, line 19, through page 3, line 9. Approval of the proposed drawing change is respectfully requested.

With regard to the objection of Claim 7 as being unclear whether it is an independent claim or a dependent claim, Applicants have amended this claim to be of conventional independent form. Accordingly, withdrawal of this objection is respectfully requested.

Claim 7 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out what is included or excluded by the claim language. Applicants respectfully traverse this rejection.

As a preliminary matter, Applicants respectfully submit that Claim 7 is not an “omnibus type” claim because this claim includes a plurality of elements, and does not resemble the example of an omnibus type claim found in MPEP §706.03(d) (An example of an omnibus type claim is: “A device substantially as shown and described.”).

With regard to the language of Claim 7 describing the “control part,” Applicants have amended this language to more clearly describe this feature. Further, Applicants have also amended Claim 7 to make lines 11-16 (of original Claim 7) more consistent with the remainder of Claim 7, and to delete redundant features.

Accordingly, in light of the above-discussion and the amendments to Claim 7, Applicants respectfully request the withdrawal of this §112 rejection of amended Claim 7.

Claims 1, 3-6 and 8 stand rejected under 35 U.S.C. § 102 (b) as being anticipated by United States Patent No. 6,510,014 to Kikuta et al. Applicants respectfully traverse this rejection.

Applicants have amended Claim 1 to include the subject matter of dependent Claim 2. As correctly acknowledged by the Examiner, the Kikuta et al. reference does not disclose the subject matter of Claim 2. *See* April 22, 2015 Office Action, page 6, paragraph 9, lines 3-5. Accordingly, since Claim 1 now includes the subject matter of Claim 2, withdrawal of this §102(b) rejection of independent Claim 1 and associated dependent Claim 3 is respectfully requested.

With regard to independent Claim 4, the device of the Kikuta et al. reference does not include features based on the assumption that noise generated in synchronization with writing should be removed from the shock sensor signal. Therefore, with the Kikuta et al. device, it is impossible to advantageously improve the reliability of the device as a whole by handling or removing the noise generated in synchronization with writing.

The Kikuta et al. device employs the position signal for setting a slice of the shock sensor itself. It is effective for a gain adjustment of respective shock sensor circuits. There is a single-systemic circuitry with respect to the shock sensor slice in the Kikuta et al. device.

By contrast, in the present invention, there are two-systemic circuitries for the shock detection signal, as shown in Fig. 2 of the instant application. According to the present invention, the two slice value setting parts 33 and 103 are independent of each other. In particular, the slice value setting part 103 is adapted to normally change the shock detection slice using the position signal. The Kikuta et al. device is intended to change the slice value in the slice value setting part 33 of Fig. 2.

In the present invention, the slice value of the slice value setting part 103 of Fig. 2 is variable and is used for detecting a slight shock. In the event that the position signal is small, the slice value can be strictly set and toughened against over-detection due to noise. However, this works closely with the position signal so that a time-lag can occur.

On the other hand, in the Kikuta et al. device, the slice value of the slice value setting part 33 is normally changed by using the position signal, the shock detection cannot demeritoriously be achieved together with a time-lag component. Accordingly, it is not intended in the Kikuta et al. device to normally change the slice.

Similar features to those discussed above with regard to independent Claim 4 are also defined in independent Claims 5 and 8. Accordingly, withdrawal of this §102(b) rejection of Claims 4-6 and 8 is respectfully requested.

Claim 2 stands rejected under 35 U.S.C. § 103 as being unpatentable over the Kikuta et al. reference. Applicants respectfully traverse this rejection.

With regard to Claim 2, the variable shock detection slice value setting part is characterized by setting a variable shock detection slice value in such a manner that the smaller the absolute value of the position error signal, the larger the variable shock detection slice value becomes. However, the Kikuta et al. reference does not disclose this feature of Claim 2. In the Kikuta et al. device, such a slice value is obtained based on the amount of a value (not the absolute value) from the POS signal. With the device of Applicants' Claim 2, it is advantageously possible to detect a slight shock, which would be a problem when the position error signal is large in magnitude. This effective advantage cannot be achieved by the Kikuta et al. device. Accordingly, as all of the features of Claim 2 are not disclosed or suggested in the Kikuta et al. reference, withdrawal of this § 103 rejection of Claim 2 is respectfully requested.

Claim 9 stands rejected under 35 U.S.C. § 103 as being unpatentable over the Kikuta et al. reference in view of United States Patent No. 6,29, 140 to Serrano et al. Applicants respectfully traverse this rejection.

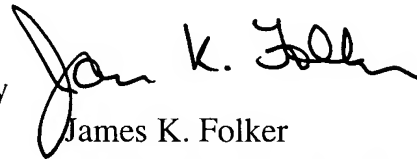
Applicants respectfully submit that the arguments made above with respect to Claim 4 also apply to this rejection of Claim 9, and that the deficiencies noted above are not remedied by the Serrano et al. reference.

For the foregoing reasons, Applicants believe that this case is in condition for allowance, which is respectfully requested. The Examiner should call Applicants' attorney if an interview would expedite prosecution.

Respectfully submitted,

GREER, BURNS & CRAIN, LTD.

By

A handwritten signature in black ink, appearing to read "James K. Folker". The signature is stylized with a large, looped initial "J" and a cursive "Folker".

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FIG. 7
PRIOR ART

